

## OBD fault-code overview list

| S. No | Component/<br>System                               | Fault<br>Type                 | Fault<br>Code | Fault<br>Code<br>descripti<br>on | Monitor<br>Strategy<br>Description   | Enable<br>Conditions  | Time<br>Required<br>since<br>Diagnosi<br>s Enable | MIL<br>Activat<br>ion<br>Criteria | Precond<br>itioning   | Demonstrat<br>ion<br>Test |
|-------|--|-------------------------------|---------------|----------------------------------|--------------------------------------|---|---|-----------------------------------|-----------------------|---------------------------|
| 1     | Engine<br>coolant<br>temperature<br>sensor         | circuit<br>Hi/Open<br>circuit | P 0118        | ISO150<br>31                     | coolant<br>temperature<br>signal     | 1. Vehicle soaktime is<br>larger than 2Min<br>2. Engine is running  | 120s  | 1st<br>Cycle                      | None                  | Idle                      |
|       |  | circuit Lo                    | P 0117        | ISO150<br>31                     | coolant<br>temperature<br>signal     | 1. Vehicle soaktime is<br>larger than 2Min<br>2. Engine is running  | 120s  | 1st<br>Cycle                      | None                  | Idle                      |
|       |  | Performan<br>ce               | P 0116        | ISO150<br>31                     | coolant<br>temperature<br>signal     | 1. Vehicle soaktime is<br>larger than 240Min<br>2. Engine is running<br>3. Accumulated fuel<br>mass mets the<br>requirement | 30s   | 2nd<br>Cycle                      | 1<br>Driving<br>cycle | Driving<br>cycle          |
|       |  | Out of<br>Range               | P 1116        | ISO150<br>31                     | coolant<br>temperature<br>signal     | 1. Vehicle soaktime is<br>larger than 240Min<br>2. Engine is running<br>3. Accumulated fuel<br>mass mets the<br>requirement | 30s   | 2nd<br>Cycle                      | 1<br>Driving<br>cycle | Driving<br>cycle          |
| 2     | Crankshaft<br>position<br>sensor                   | Device not<br>present         | P 0335        | ISO150<br>31                     | 23X signal                           | Engine is running   | 20s   | 1st<br>Cycle                      | None                  | Engine<br>Running         |
| 3     | Ignition Coil<br>"A" Primary<br>Control<br>Circuit | circuit<br>Lo/Open<br>circuit | P 2300        | ISO150<br>31                     | Circuit<br>check                     | Engine is running   | 20s   | 1st<br>Cycle                      | None                  | Key ON                    |
| 4     | Throttle<br>position<br>sensor                     | circuit Hi                    | P 0123        | ISO150<br>31                     | Circuit<br>check                     | Key on  | 20s   | 1st<br>Cycle                      | None                  | Engine<br>Running         |
|       |  | circuit<br>Lo/Open<br>circuit | P 0122        | ISO150<br>31                     | Circuit<br>check                     | Key on  | 20s   | 1st<br>Cycle                      | None                  | Key ON                    |
| 5     | Fuel Pump  | circuit Hi                    | P 0232        | ISO150<br>31                     | Circuit<br>check                     | Engine is running   | 20s   | 1st<br>Cycle                      | None                  | Engine<br>Running         |
|       |  | circuit<br>Lo/Open<br>circuit | P 0231        | ISO150<br>31                     | Circuit<br>check                     | Engine is running   | 20s   | 1st<br>Cycle                      | None                  | Key ON                    |
| 6     | ECM  | Memory<br>Checksum            | P 0601        | ISO150<br>31                     | FileRom<br>Checksum                  | Key on  | 20s   | 1st<br>Cycle                      | None                  | Key ON                    |
| 7     | Cylinder 1<br>Fuel Injector                        | circuit Hi                    | P 0262        | ISO150<br>31                     | Circuit<br>check                     | Engine is running   | 20s   | 1st<br>Cycle                      | None                  | Engine<br>Running         |
|       |  | circuit<br>Lo/Open<br>circuit | P 0261        | ISO150<br>31                     | Circuit<br>check                     | Engine is running   | 20s   | 1st<br>Cycle                      | None                  | Key ON                    |
| 8     | Manifold<br>Absolute<br>Pressure<br>Sensor         | circuit Hi                    | P 0108        | ISO150<br>31                     | MAP signal                           | Key on  | 20s   | 1st<br>Cycle                      | None                  | Key ON                    |
|       |  | circuit<br>Lo/Open<br>circuit | P 0107        | ISO150<br>31                     | MAP signal                           | Key on  | 20s   | 1st<br>Cycle                      | None                  | Key ON                    |
|       |  | Performan<br>ce               | P 3106        | ISO150<br>31                     | MAP signal                           | Engine is running   | 20s   | 2nd<br>Cycle                      | 1<br>Driving<br>cycle | Driving<br>cycle          |
|       |  | Signal<br>Stuck               | P 0105        | ISO150<br>31                     | MAP signal                           | Engine is running   | 20s   | 2nd<br>Cycle                      | 1<br>Driving<br>cycle | Engine<br>Running         |
| 9     | Intake Air<br>Temperature<br>Sensor                | circuit<br>Hi/Open<br>circuit | P 0113        | ISO150<br>31                     | Intake Air<br>Temperatur<br>e signal | Key on  | 20s   | 1st<br>Cycle                      | None                  | Key ON                    |
|       |  | circuit Lo                    | P 0112        | ISO150<br>31                     | Intake Air<br>Temperatur<br>e signal | Key on  | 20s   | 1st<br>Cycle                      | None                  | Key ON                    |
|       |  | Signal<br>Stuck               | P 0111        | ISO150<br>31                     | Intake Air<br>Temperatur<br>e signal | 1. Vehicle soaktime is<br>larger than 240Min<br>2. Engine is running<br>3. Accumulated Air<br>mass mets the<br>requirement  | 90s   | 2nd<br>Cycle                      | 1<br>Driving<br>cycle | Driving<br>cycle          |
|       |  | Performan<br>ce               | P 0114        | ISO150<br>31                     | Intake Air<br>Temperatur<br>e signal | Key on or engine is<br>running  | 150s  | 2nd<br>Cycle                      | 1<br>Driving<br>cycle | Key ON                    |

| S. No | Component/<br>System                 | Fault<br>Type                 | Fault<br>Code | Fault<br>Code<br>descripti<br>on | Monitor<br>Strategy<br>Description | Enable<br>Conditions   | Time<br>Required<br>since<br>Diagnosi<br>s Enable | MIL<br>Activat<br>ion<br>Criteria | Precond<br>itioning   | Demonstrat<br>ion<br>Test |
|-------|--------------------------------------|-------------------------------|---------------|----------------------------------|------------------------------------|--|---|-----------------------------------|-----------------------|---------------------------|
| 10    | O2 sensor 1<br>cylinder              | circuit Hi                    | P 0132        | ISO150<br>31                     | O2 sensor<br>signal                | Engine is running  | 200s  | 2nd<br>Cycle                      | None                  | Idle                      |
|       |                                      | circuit<br>Lo/Open<br>circuit | P 0131        | ISO150<br>31                     | O2 sensor<br>signal                | Engine is running  | 200s  | 2nd<br>Cycle                      | None                  | Idle                      |
|       |                                      | Out of<br>Range               | P 2195        | ISO150<br>31                     | O2 sensor<br>signal                | Overheat protection<br>mode is enabled                         | 200s  | 2nd<br>Cycle                      | None                  | Driving<br>cycle          |
|       |                                      | Performan<br>ce               | P 014D        | ISO150<br>31                     | O2 sensor<br>signal                | Engine is running<br>Engine Temperature<br>is larger than 50°C | 200s  | 3rd<br>Cycle                      | 2 Type I<br>cycles    | Type I<br>cycles          |
|       |                                      | Performan<br>ce               | P 014C        | ISO150<br>31                     | O2 sensor<br>signal                | Engine is running<br>Engine Temperature<br>is larger than 50°C | 200s  | 3rd<br>Cycle                      | 2 Type I<br>cycles    | Type I<br>cycles          |
|       | O2 sensor<br>heater 1<br>cylinder    | circuit Hi                    | P 0031        | ISO150<br>31                     | Circuit<br>check                   | Engine is running  | 20s   | 1st<br>Cycle                      | None                  | Key ON                    |
|       |                                      | circuit<br>Lo/Open<br>circuit | P 0032        | ISO150<br>31                     | Circuit<br>check                   | Engine is running  | 20s   | 1st<br>Cycle                      | None                  | Idle                      |
|       |                                      | performanc<br>e               | P 00D1        | ISO150<br>31                     | Circuit<br>check                   | Engine is running  | 200s  | 2nd<br>Cycle                      | None                  | Idle                      |
| 11    | Misfire<br>detection                 | performanc<br>e               | P 0301        | ISO150<br>31                     | Misfire<br>dection                 | 1.Engine is running<br>2.Misfire incident is<br>happened       | 900s  | 3rd<br>Cycle                      | 2 Type I<br>cycles    | Type I<br>cycles          |
| 12    | Vehicle<br>Speed Sensor<br>detection | performanc<br>e               | P 0500        | ISO150<br>31                     | Vehicle<br>Speed<br>signal         | 1.Vehicle speed plus<br>signal inpput<br>2.Engine is running   | 200s  | 2nd<br>Cycle                      | 1<br>Driving<br>cycle | Driving<br>cycle          |
| 13    | Idle air<br>control<br>system        | performanc<br>e               | P 0505        | ISO150<br>31                     | Engine<br>Speed<br>check           | Engine is running in<br>idle mode                              | 240s  | 2nd<br>Cycle                      | None                  | Idle                      |